VOL. 555 NOS. 1+2 JOURNAL OF CHROMATOGRAPHY AUGUST 30, 1991

CONTENTS

(Abstracts/Contents Lists publishes in Analytical Abstracts, Biochemical Abstracts, Biological Abstracts, Chemical Abstracts, Chemical Titles, Chromatography Abstracts, Current Contents/Life Sciences, Current Contents/Physical, Chemical & Earth Sciences, Deep-Sea Research/Part B: Oceanographic Literature Review, Excerpta Medica, Index Medicus, Mass Spectrometry Bulletin, PASCAL-CRNS, Referativnyi Zhurnal, Research Alert and Science Citation Index)

REGULAR PAPERS

Column Liquid Chromatography

Computer simulation of gradient elution separation. Accuracy of predictions for non-linear gradients
D. D. Lisi and J. D. Stuart (Storrs, CT, USA) and L. R. Snyder (Lafayette, CA, USA) (Received May 6th, 1991) 1

Application of solute and mobile phase partition coefficient to describe solute retention in reversed-phase high-performance liquid chromatography
by H. B. Patel, D. N. King and T. M. Jefferies (Bath, UK) (Received March 5th, 1991) . 21

Experimental model for predicting solute retention time as a function of mobile phase composition in ternary reversed-phase high-performance liquid chromatography
by M. Xie, C. Zhou, Z. Ren and T. Luo (Wuhan, China) (Received February 18th, 1991) 33

Retention behavior and chiral recognition of β-cyclodextrin-derivative polymer adsorbed on silica for warfarin, structurally related compounds and Dns-amino acids
by T. Thuaud, B. Sebille, A. Deratani and G. Lelievre (Thiais, France) (Received March 22nd, 1991) 53

Determination of volatile and non-volatile organic acids in technical sugar solutions by ion-exclusion chromatography
by C. A. Accorsi and G. Blo (Ferrara, Italy) (Received March 27th, 1991) 65

Simultaneous determination of prostaglandins E_1, A_1 and B_1 by reversed-phase high-performance liquid chromatography for the kinetic studies of prostaglandin E_1 in solution
by K. C. Lee and P. P. DeLuca (Lexington, KY, USA) (Received April 16th, 1991) . . . 73

High-performance liquid chromatographic separation of DL-amino acids derivatized with chiral variants of Sanger's reagent
by H. Brückner and C. Gah (Stuttgart, Germany) (Received February 11th, 1991) 81

High-performance membrane chromatography of proteins, a novel method of protein separation
by T. B. Tennikova, M. Bleha and F. Švec (Prague, Czechoslovakia) and T. V. Almazova and B. G. Belenkii (Leningrad, USSR) (Received April 14th, 1991) 97

Anion-exchange chromatography of DNA restriction fragments
by M. A. Strege and A. L. Lagu (Indianapolis, IN, USA) (Received February 28th, 1991) 109

High-performance liquid chromatography of the phenolic compounds in the juice of some French cider apple varieties
by E. Delage (Rennes, France) and G. Bohuon, A. Baron and J.-F. Drilleau (Le Rheu, France) (Received March 19th, 1991) 125

Determination of triazines and organosphorus pesticides in water samples using solid-phase extraction
by J. C. Moltó, Y. Picó, G. Font and J. Mañes (Valencia, Spain) (Received March 28th, 1991) 137

(Continued overleaf)

Rapid on-line precolumn high-performance liquid chromatographic method for the determination of benomyl, carbendazim and aldicarb species in drinking water
by C. H. Marvin and I. D. Brindle (St. Catharines, Canada), C. D. Hall (Rexdale, Canada) and M. Chiba (Vineland Station, Canada) (Received April 24th, 1991) 147

Reversed-phase high-performance liquid chromatographic determination of linear alkylbenzenesulphonates in river water at ppb levels by precolumn concentration
by Y. Yokoyama and H. Sato (Yokohama, Japan) (Received April 24th, 1991) 155

Correlation analysis in liquid chromatography of metal chelates. II. One-dimensional retention–mobile phase composition (physicochemical property) models in reversed-phase liquid chromatography
by A. R. Timerbaev, I. G. Tsoi and O. M. Petrukhin (Moscow, USSR) (Received April 24th, 1991) 163

Gas Chromatography

Theoretical and experimental comparison of serially linked and mixed-packing gas–liquid chromatography columns
by J. H. Purnell and M. H. Wattan (Swansea, UK) (Received March 13th, 1991) 173

Study of microporous carbons by gas chromatographic determination of heats of physisorption
by X. L. Cao (Lancaster, UK) and B. A. Colenutt and K. S. W. Sing (Uxbridge, UK) (Received April 15th, 1991) 183

Gas chromatographic retention behaviour of some solutes on structurally similar polar and non-polar stationary phases
by J.-C. Dutoit (Lausanne, Switzerland) (Received April 18th, 1991) 191

Attempts to use Laffort's solubility factors as polarity parameters for organic compounds in inverse gas chromatography
by A. Voelkel and J. Janas (Poznań, Poland) (Received April 18th, 1991) 205

Reliability assessment of a gas chromatographic method for polycyclic aromatic hydrocarbons in olive oil
by E. Menichini, A. Di Domenico and L. Bonanni (Rome, Italy) and E. Corradetti, L. Mazzanti and G. Zucchetti (Ascoli Piceno, Italy) (Received January 21st, 1991) 211

Simultaneous separation and determination of hydrocarbons and organochlorine compounds by using a two-step microcolumn
by O. M. Rodriguez (San José, Costa Rica) and P. G. Desideri, L. Lepri and L. Checchini (Florence, Italy) (Received April 3rd, 1991) 221

Gas chromatography–mass spectrometry and high-performance liquid chromatographic anasalyses of thermal degradation products of common plastics
by V. Pacáková (Prague, Czechoslovakia) and P. A. Leclercq (Eindhoven, The Netherlands) (Received April 12th, 1991) 229

Planar Chromatography

High-performance thin-layer chromatographic and high-performance liquid chromatographic determination of abscisic acid produced by cyanobacteria
by H. Zahradníčková, B. Maršálek and M. Polišenská (České Budějovice, Czechoslovakia) (Received April 24th, 1991) 239

Electrophoresis

Dilution effect of carbonate ion on isotachophoretic zones observed with scanning UV photometric detection
by T. Hirokawa, T. Taka, Y. Yokota and Y. Kiso (Higashi-Hiroshima, Japan) (Received April 23rd, 1991) 247

SHORT COMMUNICATIONS

Column Liquid Chromatography

Preparation of a chiral matrix. Resolution of 6(*R,S*)-N^5-formyltetrahydrofolate
by R. J. Mullin and D. S. Duch (Research Triangle Park, NC, USA) (Received May 6th, 1991) 254

Improved accuracy in the determination of field-flow fractionation elution volumes
by J. Li and K. D. Caldwell (Salt Lake City, UT, USA) (Received May 6th, 1991) 260

Use of N-acetylpsychosine as internal standard for quantiative high-performance liquid chromatographic analysis of glycosphingolipids
by O. Cecconi, S. Ruggieri and G. Mugnai (Florence, Italy) (Received April 15th, 1991) . 267

Application of ligand-exchange chromatography to the assay of L-alanine from DL-aspartic acid by *Pseudomonas dacunhae*
by C. Cheng and L.-H. Huang (Chung-Li, Taiwan) (Received March 19th, 1991) 272

Utility of dansyl derivatization to the high-performance liquid chromatographic analysis of 2-phenylethylamine drugs
by R. W. Roos (Brooklyn, NY, USA) and C. A. Lau-Cam (Jamaica, NY, USA) (Received May 13th, 1991) 278

Analysis of commercial hesperidin methyl chalcone by high-performance liquid chromatography
by J. Castillo, O. Benavente, F. Borrego and J. A. del Rio (Murcia, Spain) (Received April 19th, 1991) 285

N-(Hydroxymethyl)thioamide resin as stationary phase in ion-exchange chromatography for metal ion separation
by C. Y. Liu, M. J. Chen and T. J. Chai (Taipei, Taiwan) (Received April 24th, 1991) . . 291

Gas Chromatography

Trace determination of volatile organic compounds in soil based on thermal vaporization followed by Tenax-GC trapping and capillary gas chromatography–mass spectrometry
by Y. Yokouchi (Ibaraki, Japan) and M. Sano (Shiga, Japan) (Received April 23rd, 1991) 297

Use of Sep-Pak cartridge for preparative collection in gas chromatography
by H.-C. Wei and C.-L. Wu (Tamsui, Taiwan) (Received April 4th, 1991) 302

Determination of volatile thiols by gas chromatography using separation as tributyltin mercaptides
by M. Wroński (Łódź, Poland) (Received February 15th, 1991) 306

Determination of 3-chloropropane-1,2-diol in liquid hydrolysed vegetable proteins by capillary gas chromatography with flame ionization detection
by W. J. Plantinga, W. G. van Toorn and G. H. D. van der Stegen (Utrecht, Netherlands) (Received March 18th, 1991) 311

Planar Chromatography

Development of a screening method for five sulfonamides in salmon muscle tissue using thin-layer chromatography
by G. J. Reimer and A. Suarez (Vancouver, Canada) (Received May 7th, 1991) 315

Electrophoresis

Isotachophoretic analyser with options for operational electrolyte selection and repeated analysis
by T. Hirokawa, Y. Yokota, H. Takaba, K. Nakahara and Y. Kiso (Higashi-Hiroshima, Japan) (Received April 23rd, 1991) 322

(Continued overleaf)

BOOK REVIEW

Ion exchange in analytical chemistry (by H. E. Walton and R. D. Rocklin), reviewed by J. S. Fritz and J. Chen (Ames, IA, USA) 329

Author Index 330

In articles with more than one author, the name of the author to whom correspondence should be addressed is indicated in the article heading by a 6-pointed asterisk (*)